

Language Comparison before Comparative Linguistics: Theories of Language Change and Classification in Olof Rudbeck's *Atlantica*¹

ANNIE BURMAN

Every discipline wants an originator. Some branches of academia have a given parent - genetics has Gregor Mendel, evolutionary biology has Charles Darwin, modern feminist literary theory has Gilbert and Gubar. It is impossible to consider the study of radioactivity without turning one's thoughts to Marie Curie, and the legacy of Johann Joachim Winckelmann is still present in classical art history.²

But often the search for one originator is based on the fallacy that a discipline can be tracked back to one person - that the cradle of a subject can be found. When the history of a field is studied, these famous individuals topple from their pedestals. Original ideas are found to be derivative, and even the most venerated old scholar turns out to have opinions which to us seem antiquated and reactionary. Also, the history of any discipline is deterministic - it is interested only in that which leads to the current state of affairs, and not the abandoned roads and cul-de-sacs of scholarship. On such grounds, we assign ideas of 'major' and 'minor' players, although the scholars in questions only turned out to be this in retrospect.

Sir William Jones is usually named as the father of comparative linguistics, due to remarks made in 1786 concerning the similarities between Greek, Latin and Sanskrit. In a speech to the Asiatic Society of Bengal, he observed that these similarities were „so strong indeed, that no philologist could examine them all three without believing them to have sprung from some common source, which, perhaps, no longer exists.“³ More recently, Jones' position as the first comparative linguist has been questioned.⁴ Not only was he wrong on many counts (for instance when claiming that Egyptian, Chinese and a number of other languages were Indo-European), but he was not the first to have made these or similar observations.⁵ During the sixteenth and seventeenth centuries ideas of comparison as a means of studying languages and the concept of genetic relationships between languages were already becoming more common.

In this paper, I will explore the use of language comparison and language classification in the *Atlantica* by Olof Rudbeck the Elder (1630-1702), a seldom-studied participant of seventeenth century linguistics.⁶ Rudbeck could in many ways be seen as a minor player, but simultaneously he is a missing piece of the history of language comparison. Similarly, the study of Rudbeck tends not to consider his study of

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2 The Augustinian friar Gregor Mendel, who published on his famous pea plant experiments in 1866, coined the terms „recessive“ and „dominant“. Charles Darwin's *On the Origin of Species* (1859) laid the foundations for evolutionary biology. *The Madwoman in the Attic* by Sandra M. Gilbert and Susan Gubar (New Haven, 1984) is often seen as the first work of feminist literary criticism. Marie Curie's work on radioactivity (a term she herself coined) was awarded with two Nobel prizes, in physics 1903 and chemistry 1911. Johann Joachim Winckelmann's *Geschichte der Kunst des Altertums* (1764) is a seminal text for classical art history.

3 Quoted in Campbell/Poser (2008), 36.

4 For an exhaustive criticism of Jones' ideas and legacy, see Campbell/Poser (2008), 37-41.

5 Metcalf (1974), 251-252; Campbell/Poser (2008), 37.

6 Metcalf (1974), 249-251 touches upon Rudbeck's linguistic scholarship, and Rudbeck is mentioned in Borst (1957-1963), 1339-140. Neither goes into any detail about his methods or conclusions. Schück/Warburg (1927), 261-262 touch briefly upon Rudbeck's study of language. Agrell 1955, (107-117) is the most in-depth discussion of Rudbeck's linguistics to date, but Agrell's analysis is not unbiased. In addition, Agrell spends more time discussing Rudbeck's ideas of the evolution of writing than for example on Rudbeck's language change. Although there are mentions in larger works about Rudbeck, there has not yet been a study concentrating on Rudbeck's linguistics.

language in its own right. I will demonstrate how Rudbeck, for all his bias, was a participant in contemporary linguistic scholarship and an indirect forerunner to modern comparative linguistics.

First of all, we must acknowledge that „seventeenth-century linguistics“ is an anachronistic term. Works on language were not written by or for specialists, but by and for learned men of the elite.⁷ Disciplines as a whole were not well-defined in the seventeenth century, and C.P. Snow's Two Cultures were not yet as separated and isolated as they became in the eighteenth and nineteenth centuries.⁸ The language and history of a people was seen as so interconnected that the study of one meant the study of the other.⁹ As the total sum of knowledge was much smaller, and specification was not required, it was also possible to be deeply engaged in many different disciplines. Rudbeck is an extreme example of this. Although he was professor of medicine, he also lectured in a number of other subjects, including technology, architecture, music, and horticulture.¹⁰

Still during the Early Modern period, scholarship relied heavily on the Bible, complemented only by Aristotelean principles. The story of the tower of Babel (*Genesis* 11.6-9) was accepted as the explanation for linguistic and cultural diversity. The question in vogue during the sixteenth and seventeenth centuries was the Adamic language, the first language of mankind. Hebrew was the most common suggestion, but in the latter half of the seventeenth century, the suggestions became more varied, ranging from Chinese to Flemish.¹¹ The debate of the Adamic language was not only a search for origins, but also had a theological, almost mystical, side to it. It was thought that if the first language was found, the Confusion of Babel could be undone.¹²

Compared to many of his contemporaries, Rudbeck did not have much interest in the Adamic language.¹³ Contrary to what Malm argues, Rudbeck never claims that Swedish (which he occasionally refers to as „Scythian“ or „Gothic“) is the Adamic language.¹⁴ Neither does he single out Hebrew, as Agrell and Eriksson states he does.¹⁵ Instead, Rudbeck sees Swedish as a culturally seminal language of Europe and the Mediterranean. Swedish is not the ancestor of other European languages, but has had influence through contact and population movements. The first language must have been lost:

If all lands' tongues were confused, then no land's tongue would be an exception. This can be seen in all of Chapter 10 [of *Genesis*] where it says [- - -] that God separated all of Sem, Ham and Japhet's children according to their tongue, family, people, and language, and so does not make exception to any. So I cannot see what reason people have, who want to take aside the Hebrew language [- - -] or the Scythian.¹⁶

During the seventeenth century, the position of the Bible as an infallible source was being challenged by new evidence and modes of thinking. New knowledge was entering Europe, whether 'discovered' by missionaries, explorers and traders, or hypothesised by scientists and scholars.¹⁷ European scholars worked

7 Metcalf (1974), 253.

8 Snow (1998), 29.

9 Metcalf (1974), 240-241.

10 Eriksson (2002), 220, 588-589. Schück/Warburg (1927), 248. See Metcalf (1974), 256 n.9 for a list of the diverse careers of Early Modern scholars of language. Agrell (1955), 107 argues that Rudbeck's engagements in so many subjects prevented him from reaching his full potential as a scientist. It is to say the least difficult to tell what discoveries Rudbeck would have made, had he not engaged in for example the study of language and myths. However, no such antagonism between these fields existed during Rudbeck's time, and if Rudbeck did not live up to his full potential, that may be more down to his personality than his polymathy (see Schück/Warburg (1927), 247-249 for a discussion of Rudbeck's personality).

11 Diderichsen (1974), 282-283; Simone (1998), 163.

12 Bold (1981), 9.

13 References to the *Atlantica* will be to the volume and page number of the Lychnos edition (Rudbeck (1937-1950)). The original Swedish is given in the footnotes with the references. All translations of the *Atlantica* are my own.

14 Malm (1996), 15.

15 Agrell (1955), 109. Eriksson (2002), 286. The passage which makes Agrell and Eriksson make this claim (Rudbeck, *Atlantica*, I.32) is not Rudbeck's own opinions, but a retelling of Stiernhielm's argument that man reverted to speaking Hebrew a few days after the Confusion of Babel, after which the languages diverged on their own. Rudbeck sees this as very implausible, as main languages are so different.

16 Rudbeck, *Atlantica*, I.30. „Woro all Lands tungomål förbistrade, så war och intet Landstungomål undantagit. Hwilket och synes af hela thet 10 Cap. ty thet står [- - -] att Gudh skiffar alla Sems, Hams och Japhets Barn till åthskilliga efter hwart sitt mål, Slächte, Folck och Tungomål, och tager så ingen undan. Kan jag så intet se hwad skiäl de hafwa, som willja antingen taga dhett Hebraiska språket undan, [- - -] eller det Skytiska“.

17 Campbell and Poser (2008), 13.

hard to fit new cultures and languages into the Biblical framework, and would even suggest human polygenesis, in order to explain the incompatible chronologies of China and India. However, many scholars saw no reason to suggest a different Adam for other cultures, and incorporated them into the already existing European chronology. One such example is Johann-Heinrich Alsted (1588-1638), who included both Asian and West-Indian languages among the 72 languages after the Confusion of Babel.¹⁸

Despite this secularisation, it is not possible to divide the Biblical and increasingly worldly parts of seventeenth century linguistics.¹⁹ The *Atlantica* is an intermarriage between biblical and ‘scientific’ evidence. During the Cartesian Contentions, an intellectual conflict at Uppsala between theologians and the modernist Cartesian camp during the 1660s and 1680s, Rudbeck sided with the modernist camp, who argued that the Bible was right in matters of faith, but not necessarily in more worldly matters.²⁰ In the *Atlantica*, the Bible is used as a source for the earliest history of man, but Biblical stories are often accompanied with contemporary evidence. When discussing the Great Flood, Rudbeck describes his own observations during a flood in 1673 and quotes archaeological finds:

In 1462 a ship, not much different from those which are used now, was found at Bern in Switzerland, a hundred yards below the ground in a mine, and in it was 40 human skeletons. By Montaban in France ships’ anchors have also been found, far below ground. In Peru in the West Indies a ship, on which an unknown writing had been carved, has also been found far below in a gold-mine.²¹

Rudbeck’s anecdotes should not be seen as verifications of Biblical stories, but examples, much like scientific experiments of this time were not done to prove or refute a theory, but to illustrate it.²² Although the Bible provides the backdrop, Rudbeck relies more on Greek and Latin writers, but is suspicious of them, claiming that there is more truth in the Icelandic Eddas, which had only recently become available in Sweden.²³ He also quotes scientific findings, some of them his own.

Undoubtedly the most modern-seeming theory of the seventeenth century (but which nevertheless coexisted with Biblical theories) is that which has been named the Scythian hypothesis by posterity.²⁴ This theory, often seen as a direct ancestor of the Indo-European hypothesis, saw the ancient Scythians of the Black Sea region as the speakers of the mother language of Europe. Many scholars divorced the Scythians of the hypothesis from the historical Scythians mentioned by Herodotus and Strabo, and identified them with other peoples.²⁵ Many scholars argued that the Scythians were in fact Goths.²⁶ Already Johannes Magnus’ *Historia de Omnibus Gothorum Suenoumque Regibus* (1554) implied a connection between the Goths and Scythians.²⁷ Johannes Magnus’ work became the basis of the protonationalist movement of Gothicism, which gained popularity after the military victories of the Thirty Years War and the subsequent land gains around

18 Borst (1957-1963), 1351-1352.

19 The so-called Dutch etymologists were engaged both in the search for the Adamic language, and in pursuits which seem modern, such as proposing ideas of sound correspondences, basic vocabulary and the differentiation of basic and derived terms. Vander Mylius even suggests Flemish both as the Adamic language and as the mother language of Persian and a number of European languages. 19 Simone (1998), 163; Campbell/Poser (2008), 15-17.

20 See Borst (1957-1963), 1339 on Rudbeck’s use of Biblical stories.

21 Rudbeck, *Atlantica*, I.28-29. „åhr 1462. är wid Bern i Switzerland, hundrade fambnar diuvt neder i jorden, i en Grufwa funnits en Skuta, ey mycket oliik dem som nu brukas, och 40 Menniskiors beenragel där uti. Wed Montaban i Frankrike äro och skeps-ankar fundna, långt under jorden. Uti Peru i Wäst-Indien hafwer och funnits ett Skep, långt neder i en Gullgrufwa, på hwilket war en obekant Skriffit skurin.“

22 Eriksson (1994), 117.

23 Malm (1996), 29, 78, Janowsky (1994), 1557. See Schück/Warburg (1927), 255 on Rudbeck’s study as against the Graeco-Roman-centric humanists.

24 See Muller (1986), 10-12 for a good breakdown on the Scythian hypothesis.

25 Hdt., IV passim, Strab., VII.3.7-9.

26 Campbell/Poser (2008), 19; Gren-Eklund (2007), 26-27.

27 Johannesson (1982), 121.

the Baltic.²⁸ Like Johannes Magnus and other Gothicists, Rudbeck also believed that the Goths originated in Sweden.²⁹ Due to this, Rudbeck uses the terms Gothic, Scythian and Swedish as near-synonyms. This identification gives Sweden a further reach over Europe. Although Rudbeck was not a follower of the Scythian hypothesis, he shares ideas with it, and may have been aware of the theory.

Rudbeck's patriotism is unmistakable in his choice to write the *Atlantica* in Swedish, a language which at the time did not have an established canon.³⁰ The Bible had only been translated into Swedish around 150 years before, and a hymnal did not appear until 1695.³¹ Although Rudbeck uses the Latin terms *vocales*, *diphthongi*, *sonantes* and *consonantes*, he also uses Swedish calques of the latter two, calling vowels and diphthongs „sielfliudande bokstäfwer“ and consonants „medliudande bokstäfwer“ (I.17).³² This may be influenced by Georg Stiernhielm's attempts at translating Latin grammatical terms into Swedish.³³ However, it would have been virtually impossible to publish a scholarly opus only in a vernacular language at this time.³⁴ Rudbeck commissioned a Latin translation, which runs parallel with the Swedish in the original edition.³⁵ Despite the fact that the Swedish text was the original, the Latin takes up two thirds of the page.

The rise of protonationalism of the sixteenth and seventeenth centuries led to the appearance of grammars of vernaculars. However, they were still few. By 1700, 62 grammars on vernaculars had been published.³⁶ Swedish was not among them. It is unclear to what grammars Rudbeck had access, but grammars were often published in small editions and were not reprinted, and were therefore difficult to obtain.³⁷ Modern languages were easiest accessed through vocabulary lists, polyglot dictionaries and collections of language samples, *Mithridates* (a term taken from the title of Konrad Gessner's collection of 22 versions of the Lord's Prayer).³⁸

Other languages also became increasingly available during Rudbeck's lifetime. The *Codex Argenteus*, previously owned by Queen Christina of Sweden, had been identified as the Wulfila Gospels in Gothic by Isaac Vossius and Franciscus Junius in the 1660s.³⁹ In 1671, six years before the first volume of *Atlantica* saw the light of day, Georg Stiernhielm published an edition of the Gothic text with parallel texts in Icelandic and Swedish, two choices doubtlessly motivated by Gothicist views.⁴⁰ The volume also included language comparisons between Gothic and Latin. The Icelandic *Eddas* became available in 1665, through Petrus Resenius' edition.⁴¹

The linguistics of the *Atlantica* is often Eurocentric, but on occasion Rudbeck strays outside Europe. He discusses Persian a number of times, something that may be thanks to the professorship of Gustaf Peringer in Oriental languages at Uppsala 1681-1695.⁴² The last sixty pages of the third volume is dedicated to

28 The term „nationalism“ is strongly associated to the movement in the 19th century, which makes it inadvisable to use it when speaking about earlier times. In order to avoid these problems, the ideology found in Early Modern times is often referred to as „protonationalism“. This term is not without its problems, seeing as it takes a later movement as its model, and the prefix „proto-“ implies a causal connection between them. Unlike nationalism, this was not an organised movement. Despite these drawbacks, it is as good a term as any as long as we keep the problems in mind.

29 Malm (1996), 12.

30 Schück/Warburg (1927), 256 discuss Rudbeck's use of Swedish in academic missives, as well as in the *Atlantica*.

31 Eriksson (2002), 584. Rudbeck wrote some of the music, published in 1697.

32 For Rudbeck's criticism on Swedes' tendency to codeswitch and use loans, see Nelson (1950), 283.

33 Olsson (2007-2011), 433. See Agrell (1955), 117 on Stiernhielm's influence on Rudbeck.

34 Schück/Warburg (1927), 256-257.

35 In the introduction to the *Atlantica*, Rudbeck acknowledges that the translation would be a time-consuming endeavour. He also claims that he had not kept up his Latin enough to be able to do the translation, a claim it seems better not to trust, as modesty was a common rhetorical feature. Rudbeck, *Atlantica* I.4-5. It seems more likely that this was a case of delegation. Rudbeck's friend Professor Andreas Norcopensis seems to have translated the first two volumes of the *Atlantica* (Nelson (1937), 567. Nelson (1950), 277). The translation of the third volume was done by Rudbeck's great-nephew Nicolaus Salan. A part of the fourth, unfinished volume was translated by on Retzelius (Nelson (1950), 277). Nelson points out that the translation was not an easy task, as Rudbeck had a tendency to misquote Classical authors. In the Latin translation, incorrect citations have been changed, but misquotes have been kept (Nelson (1950), 278).

36 Rowe (1974), 361. 41 of these vernacular grammars were published during the seventeenth century.

37 Rowe (1974), 363.

38 Labarre (1975), 116, Muller (1986), 20.

39 Janowsky (1994), 1558.

40 Diderichsen (1974), 283.

41 Janowsky (1994), 1557-1558.

42 Dederling (1980-1981), 86. Utas (2007), 116-117. Helander (2007), 96-97.

Phoenician, including a wordlist, limited to words attested in ancient authors.⁴³ Until Abbé Jean Jacques Barthélemy's decipherment of Phoenician in 1758, this was the only source, along with a few coins, to the language.⁴⁴ Rudbeck never mentions Sanskrit (which at this time was making its first appearance in Western scholarship), and Hebrew only appears in passing. Despite the importance of the *Eddas*, Icelandic is seldom discussed, despite the fact that material was available to Rudbeck.

Rudbeck's main interest in language is that of etymology. At the end of the first volume, the *Atlantica* is described as a building, where the etymologies are simply the ornamentation, which will not please everyone, „for when one wants green, the other wants grey, when one wants Doric, the other wants Ionic“.⁴⁵ However, this downplays the etymologies, which form a distinctive theme throughout the *Atlantica*. Eriksson argues convincingly that Rudbeck sees words, much like myths, as a kind of riddle which must be solved to give insight into the nature of the name-bearer. This echoes both classical ideas of etymology, like those outlined in Plato's *Cratylus*, and certain readings of Adam's naming of the animals (*Genesis* 2.19).⁴⁶ According to Rudbeck, words do not lose their origin, and it is possible to uncover it even when the speakers themselves have forgotten it.⁴⁷ Similarly, he is convinced that peoples do not lose or give up their language. Language is the essence of a people, an idea with both Biblical and protonationalist roots. Language is named as the most important divider of people in the beginning of the *Atlantica*.⁴⁸

Most of Rudbeck's etymologies are of Greek and Latin names, especially those of gods and places. Correspondences are based on formal similarities and vague semantic connections, e.g. Venus and Swedish *Wen*, „friend“ and *Wän* „sweet“.⁴⁹ Rudbeck's ability to find Swedish etymologies is as impressive as it is disturbing. Demeter, he argues, must originally be *Dy-moder*, where *dij*, „the act of suckling“ constitutes the perplexing first member, but had the name been „γῆμητερ [sic]“, as many ancients speculated it originally was, the etymology would have been *Giömoder*, from *giöa*, „to feed“.⁵⁰ It is worth noting that of the Olympian gods, we only have a Indo-European etymology of Zeus - the rest are non-Indo-European, and cannot be given certain etymologies.⁵¹ On occasion, Rudbeck discusses Greek and Roman terms other than names. For instance he claims that the Scythians were called *Borborn*, „children of Bore“, after an early king, which was misinterpreted by the Greeks as „barbarians“.⁵²

Language is discussed extensively in the second and third chapters of the first volume of the *Atlantica*.⁵³ In the second chapter, Rudbeck refutes that sounds can simply be swapped, because „if one was allowed to swap in that way, then one could make all languages into one and one into all“.⁵⁴ Instead, he identifies specific forms of sound-change, such as change of vowels (e.g. Swedish *Kung* – Danish *Kång* – German *König* – English *King*), change in consonants (e.g. Swedish *Fisk* – Latin *Piscis*), as well as „shortened“ (contracted), e.g. Swedish *Fader* – *Faar*; and „lengthened“ words (with anaptyxis), e.g. Swedish

43 Rudbeck, *Atlantica*, III.707-719. Rudbeck gives citations for the Phoenician words, and includes comparative material from Swedish, German, Hebrew, Greek, Latin, „Slavic“ and Finnish.

44 Lehmann (2013), 213. For a list of Phoenician-Punic glosses known at this time, see Lehmann (2013), 221-222.

45 Rudbeck, *Atlantica*, I.560. „ty när den ena wil hafwa grönt, will den andra hafwa grått, när den ena wil hafwa Doric, wil den andra hafwa Ionic.“

46 Eco (1993), 14. Matthews (1994), 17-19, Bold (1981), 9.

47 Rudbeck, *Atlantica*, I.23.

48 Rudbeck, *Atlantica*, I.16.

49 Rudbeck, *Atlantica*, I.24-25. The theonym *Venus* and Swedish *vän* „sweet“ is in fact cognates, both derived from the PIE root **uenH1-*. (de Vaan (2008), 663 s.v. *venus -eris*, Hellquist (1922), 1166 s.v. *vän*.)

50 Rudbeck, *Atlantica*, II.461. Demeter is associated with Γῆμητηρ in Diod. Sic. I.12.4, S. Emp. *Math.* IX.189, Cornutus c. 28, Cic. nat. deor. II.67. However, this name was never used instead of Demeter (Mayor and Swainson (1883), 176). For the persistence of this idea, see Beekes (2010), 324-325 s.v. Δημήτηρ.

51 Beekes (2010), 498, s.v. Ζεύς. The first member of Dionysus is probably derived from Ζεύς, gen. Διός, but the second member remains obscure. Beekes (2010), 337 s.v. Διόνυσος. Attempts have been done to identify the ultimate origin of non-Indo-European Greek theonyms, but many such suggestions are speculative. See Beekes (2010) 29 s.v. Αθήνη, s.v. 118 Απόλλων, 129-130 s.v. Άρης, 142 s.v. Άρτεμις, 179 s.v. Αφροδίτη, 462 s.v. Ερμής, 524 s.v. Ήρα.

52 Rudbeck, *Atlantica*, I.434.

53 For a summary of the first three chapters, see Eriksson (2002), 279-288.

54 Rudbeck, *Atlantica*, I.16. „får man så byta, så kan man göra alla Språk till ett, och ett till alla“.

Knut – Latin *Canutus*, and „letters moved back“ (seemingly metathesis), e.g. *grema*, „agonize“ – *giemra* „wail“).⁵⁵

Rudbeck does not make a clear distinction between the written sign and the articulated sound, but calls sounds *bookstäfwer*, „letters“, in the same way as ancient grammarians used *litterae*.⁵⁶ As a result, he treats sounds which can be written in two ways as separate sounds. For example, <K> and <Q> are given separately, even if they represented the same voiceless velar in Swedish prestandardised orthography.⁵⁷ Rudbeck treats /v/ and /u/, and /j/ and /i/ as interchangeable, such as in the metathesised pair *vicka*, „wiggle“ – *jucka*, „buck“. ⁵⁸ This is undoubtedly down to prestandardised orthography, where <j> could be used for the vowel /i/, and /j/ could be referred to as „I. cons.“, a feature borrowed from Latin, where these sounds are allophones.⁵⁹

When discussing sound change, Rudbeck states that vowel change happens easily, as vowels are simply a continuum of sound which slowly changes as the speaker closes the mouth.⁶⁰ However, he does not believe that change is arbitrary, like Philipp Clüver, whom he mocks for turning „Theut“ into „Dan“ and „Dan“ into „Godh“. ⁶¹ Instead, change follows certain routes. Consonant change occurs among „those which are of almost the same nature respectively“. ⁶² He gives examples of this, such as „B.P. F. W.“ Most of these groups are not arbitrary, but share rough phonetic similarities. Rudbeck uses these correspondences on occasion later in the *Atlantica*, but with little consistency. As in much of Early Modern scholarship of language, phonetic elements were „viewed a-historically, non-genetically, as interchangeable counters“. ⁶³ Rudbeck explores tendencies of change, not sound-laws.⁶⁴

Arguments on language are sometimes backed up with categorisation and tabulation. In the second chapter of the first volume, there are three lists of supposedly related words, and these lists remain common throughout the *Atlantica*. The longest table in chapter two illustrates consonant change, and consists of 136 correspondence pairs.⁶⁵ The number of repetitions in the corresponding ‘letters’ shows plainly that Rudbeck does not believe in exceptionless or regular change. There is no attempt to reconstruct any original forms. In this table, inherited words and borrowings are subject to similar treatment. Several of the correspondences between Swedish <K> and Latin <C> are loans into Swedish, e.g. Swedish *krona* and Latin *corona* „crown“. Even if Rudbeck is primarily concerned with superficial likeness of the words on the page, semantics also play a part, e.g. in the Greek theonym *Pan* – Swedish *Fan*, „the Devil“, supposedly paired as both are horned. Some correspondences, such as certain examples of F – P (e.g. Swedish *fisk* – Latin *piscis*) and Swedish P – Danish B (e.g. Swedish *läppar* – Danish *læbe*, „lips“), are held to be true by modern linguists.⁶⁶ However, most cognates in the table have no relation to each other.

55 Rudbeck, *Atlantica*, I.16-19. „Afkortade“, „Förlängde“, „Tillbaka satte Bookstäfwer.“

56 Varro ling., V.79. Matthews (1994), 12-13. Like Varro and other ancient grammarians, Rudbeck imagines a stock of original words (primarily verbs), from which one can derive all other words. A large number of derived words is a clear sign that the word is autochthonous. For instance, *Byggia* „to build“ is proven to be Swedish by a list of (seemingly) related words: *Byggnig*, *Bygd*, *By*, *Byman*, *Byswen*, *Bywiisa*, *Byamål*, *Byamoot*, *Bylagd*, *Bygmästare* (Rudbeck, *Atlantica*, I.23). Rudbeck’s lists are similar to those found in Varro: „Ab sedendo appellatae sedes, sedile, solium, sellae, siliquastrum; deinde ab his subsellium: ut subsipere quod non plane sapit, sic quod non plane erat sella, subsellium.“ (Varro ling., V.128) Rudbeck on occasion gives similar derivations of Latin words, though briefer: „conjux from conjugio, conjugere, amor from amare“ (Rudbeck, *Atlantica*, I.25). Overall, the seventeenth century study of language owes much to ancient grammarians. See Diderichsen (1974), 280.

57 Rudbeck, *Atlantica*, I.17.

58 Rudbeck, *Atlantica*, I.19.

59 Rudbeck, *Atlantica*, I.17.

60 Rudbeck, *Atlantica*, I.17.

61 Rudbeck, *Atlantica*, I.16.

62 Rudbeck, *Atlantica*, I.17. „de som äro aff een lijka nästan natur“

63 Metcalf (1974), 251.

64 Agrell (1955), 115 suggests that Rudbeck may have had an inkling of the existence of sound laws. If this is true, it could not have been more than an inkling.

65 Rudbeck, *Atlantica*, I.17-19.

66 Agrell (1955), 115 gives a list of Rudbeck’s correct correspondences. For unknown reasons, he includes *Pan* – *Fan*, two words which are not related.

Rudbeck seldom discusses morphology, but lexical morphology features in his discussion of the goddess *Basileja*, cited as an alternative name of the Norse goddess Frigga.⁶⁷ Rudbeck first asserts that Greek βασιλεύς „king“, which he mistranscribes to „*Basilejôs*“, making it a second declension instead of third declension, is a compound of „*Basse*, a King and *Laos* People“. He claims that it is the same as the „Swedish“ word *Basselijdz*.⁶⁸ He also gives other related forms, such as Swedish *Bassa*, „to rule, to strike“ and the Sami gods *Passe* and *Basse* (which are in fact not gods, but variant spellings of the word *pase* „holy“, an interesting mistake as the incorrect meaning still stays within the same semantic sphere).⁶⁹ Rudbeck now turns to the uncommon Greek word βασίλιννα, „queen“, and observes that it has kept the Gothic word ending.⁷⁰ To illustrate Swedish feminines like *Basilinna*, Rudbeck lists a number of words: „Gud Gudinna, Crotte Dotninna and Drotningen, Furste Furstinna, Grefwe Grefwinna, Frijherre Frijherinna etc.“⁷¹ Based on this evidence, Rudbeck proposes something a little like four-way analogy, where he suggests that the feminine of *Basse* must be *Basilinna* (the /l/ is not accounted for), meaning that *Basileja* no longer has a meaning. Rudbeck compares this word to the toponyms *Scan-eja* and *Scanö*, and surmises that it is in fact a name for Sweden.⁷²

As can be seen from this discussion, Rudbeck's mastery of Greek is doubtful.⁷³ He cites a large number of Greek sources, but it is likely that he read these translated into Latin.⁷⁴ A copy of Xenophon's extant works (1595, edited by Johannes Leunclavius and Æmilius Portus) with underlinings in Rudbeck's hand in both the Latin and Greek texts survives in the University Library in Uppsala.⁷⁵ The discussion of *Basilinna* is not the only strange example in the *Atlantica* - there are bizarre examples such as „Elysios campos“, a Latin term with Greek case endings.⁷⁶

Changeability of language was a central theme of the study of language in Early Modern Europe. It was thought that language was corrupted by the passage of time, and only old languages (particularly Hebrew) would not be corrupted.⁷⁷ Rudbeck does not share this general view, but instead sees language contact as crucial to change in pronunciation and vocabulary. Little else can change a language:

if we take a language, for example Italian, and look through all the words, then most of them (with the exception of some Gothic, Indian and African etc. words, which have been introduced through war or trade and custom) will be the same as those used 2000 years ago in Italy, and they are only slightly different in word-endings and pronunciation, or compounding.⁷⁸

The difference between Latin and Italian is not primarily one of phonology, morphology or syntax, but one of lexicon. Similarly, Rudbeck observes that although it is difficult for someone who has learnt to read Classical Greek to understand the modern variety, it is undoubtedly the same language: „yet one can mostly draw the origin of its [Greek's] words to old Greek, in the same way as our Swedish from old Swedish.“⁷⁹

67 Rudbeck, *Atlantica*, II.72.

68 Rudbeck, *Atlantica*, II.72. „*Basse* en Konung och *Laos* Folck“.

69 Itkonen (1987), 310-311, s.v. *pase*.

70 Rudbeck, *Atlantica*, II.72. Rudbeck gives his source as Menander, one of the few to use this word (Men. fragm. 907 Kock). He calls Menander a „Gothic poet“ („dhen Götiske Poeten“), which is no doubt a mistake for „Greek“, whether Rudbeck's or the type-setter's.

71 Rudbeck, *Atlantica*, II.72.

72 Rudbeck, *Atlantica*, II.73.

73 Nelson (1947), 760 makes the same observation. Mistakes in Greek accents are fairly common in the *Atlantica*, e.g. γή for γῆ, καρδία for καρδία (Rudbeck, *Atlantica*, I.27). However, it is difficult to tell whether this fault is Rudbeck's or the typesetter's. These mistakes are not consistent - γῆ is given correctly elsewhere (Rudbeck, *Atlantica*, II.461).

74 Nelson (1950), 278.

75 UUB Script. Graeci Fol. [Xenophon].

76 Rudbeck, *Atlantica*, I.358.

77 Metcalf (1974), 327.

78 Rudbeck, *Atlantica*, I.33. „om man wil nu taga ett språk til exempel Italienska, och ransaka effter alla dhess ord, så skall största delen (undantagandes några Gotiska, Indianska och Africaniske etc. ord, som antingen genom Krig eller handel och wandel äro inkomne) wara dhe samme, som för 2000 Åhr taltes uti Italien, och skilja allenast något på ordens lyctande och uttalande, eller tillsammansättiande.“

79 Rudbeck, *Atlantica*, I.49. „doch kan man mästadelen af des ord draga til sit ursprung af den Gambla Grekiskan, lijka som vår Swenska af dhen gamla Swenskan.“

Rudbeck argues that as only language contact causes change, corruption comes from high society, as educated people borrow words more often than a stable-hand or a maid. The most old-fashioned version of a language will be found far from the ports, and will be spoken by the uneducated.⁸⁰ Furthermore, „one of the most common words which the common man uses will seldom or never be exchanged“, since it is not used by „courteous people“, for example words for breaking wind.⁸¹ Citing Meninski's *Thesaurus Linguarum Orientalium* (1680-1687), Rudbeck claims that the Persian word for this is „Fijs, Fes, and Fesna“, which is the same as in Swedish.⁸² Therefore Persian must once have been the same as Swedish, through the Scythians, especially as none of the languages between Swedish and Persian have the same word.⁸³ This is one of the only places that Rudbeck includes cultures outside of Europe in his theory, which is usually centred on Europe and the Mediterranean. Rudbeck's observation of the durability of rude words holds true. It has been possible to reconstruct two Indo-European roots for words with the meaning above.⁸⁴

Rudbeck's language classification is primarily based on peoples and geography. He argues that the first three peoples in Europe were „Graecos, Celtas and Scythas“, and their accompanying language are the three original languages of Europe.⁸⁵ Every European word which is not loaned is either Greek, Celtic or Scythian - it is just a question of identifying it correctly.⁸⁶ Rudbeck calls these three languages *Hufwudspråk*, „main languages“, which he defines as languages which „are separated so completely, that one word is not like the other, like that *Folk* in Swedish is called *Gens* in Latin“. This implies that the term is based on comparison.⁸⁷ The main languages have their origin in the Confusion, „but the descendants of the main languages and small differences [within the main languages] have happened through the ages, since people have mixed through war, trade and customs“.⁸⁸

Rudbeck identifies Scythia as Sweden, based on Gothicist ideas, and on an ancient belief, retold by Strabo, who cites Ephorus as his source, that the world was divided into four parts, with Scythia in the north, opposite of Ethiopia in the south.⁸⁹ Some Scythians went East and „were mixed with Tatars, Slavs and Indians, [and] lost most of their language, but kept the name“.⁹⁰ These are the Scythians of the Black Sea region. The definition of Greeks, Rudbeck assured the reader, is straightforward, as they are the people who live in Greece. The Celts present more of a problem. Rudbeck is aware that unless ancient languages are written down, they are lost to us. While there is evidence of Greek in the form of „stones, and also legends and poets kept from olden days“, and there is similar evidence of Scythian, Celtic poses a problem, as „of the Celtic one finds little: still I will call that which still survives among Latins, Spaniards and Frenchmen Celtic“.⁹¹ It is obvious that Rudbeck has no knowledge of the languages we now identify as Continental

80 Rudbeck, *Atlantica*, III.171-172.

81 Rudbeck, *Atlantica*, III.172. „ett af dhe gemensaste ord som gemene Man bruka“ ... „höfligt Folck“.

82 Rudbeck, *Atlantica* III.172. No word identical to these words are mentioned by Meninski. It seems likely that Rudbeck has misremembered or consciously misquoted one of the many terms Meninski mentions for „crepitus“, for example *tīz* (Meninski ([1687] 2000), 300). As Meninski's system for indicating whether a word is Turkish, Arabic or Persian is obscure, Rudbeck's assignation of the word to Persian should not be given much weight.

83 Many Early Modern scholars argued that the Scythians and Persians were close, or one and the same. Campbell/Poser (2008), 19.

84 Rix et al. (2001), 473 s.v. **perd-*, 477 s.v. **pesd-*. Rudbeck mentions eleven words to show that Persian and Swedish are separated by languages without the same word. Of the nine Indo-European words in this list, seven come from the PIE root **perd-*. The two Finno-Ugric terms are correct. The only seemingly incorrect one is the Polish term.

85 Rudbeck, *Atlantica*, I.41.

86 Rudbeck, *Atlantica*, I.49.

87 Rudbeck, *Atlantica*, I.16. „Hwilka skiljas mehr och mindre åt, dem kallar man hufwudspråk, som heelt och hållit så skilias, att det ena ordet är intet likt det andra, såsom Folk på Swänska heter på Latin *Gens*“.

88 Rudbeck, *Atlantica*, I.33-34. „men Hufwudspråkens afkomne och små åthskilningar äro skedde genom tiderna, i det Folken genom krig, handel och wandel äro blandade“.

89 Rudbeck, *Atlantica*, I.46-47, Strab., I.2.28.

90 Rudbeck, *Atlantica*, I.50. „blandades med Tattarer, Slawer och Indianer, förlorade mästadeles sitt Språk, dock behöllo dhe nampnet“.

91 Rudbeck, *Atlantica*, I.48. „både Stenar, så och Sagor och Skalder af gamla tider behållna“ ... „Men af dhett Celtiska finner man ringa: doch kallar jag det Celtisk, som är än i dag behållit hoos dhe Latiner, Spaniorer och Frantzoser.“

Celtic. His belief that language shifts are very rare makes him assume that French and Spanish have always been spoken in the areas where they are now found, which leads him to identify them as Celtic.⁹²

Rudbeck shares Dionysius' of Halicarnassus view of Latin as a mixed language.⁹³ The large number of Greek words in Latin perplexes Rudbeck.⁹⁴ Whether these are Latin cognates to Greek words or actual Greek loans is difficult to tell. Having identified them as Greek, Rudbeck asks from what language the remaining words come. He excludes Hebrew, Scythian, Arabic and Ethiopian, before settling on Celtic.⁹⁵ He explained the mixing as a result of when the originally Greek-speaking Romans mingled with the Celtic invaders of early Roman history.⁹⁶ Rudbeck argues passionately against the suggestion that French and Spanish are descendants of Latin, claiming that there were not enough people in Italy to populate such a great area. If the population of France and Spain would adopt a language of invaders so easily, Rudbeck argues, they should arguably speak Gothic, not a form of Celtic.⁹⁷ In Rudbeck's opinion, language-shifts are uncommon and undesirable.

Apart from Greek, Celtic and Scythian, Rudbeck identifies two other main languages in Europe - Finnish, „under which comes Lapp, Estonian, Biarmian“ (the latter being the supposed Finno-Ugric language of the Arkhangelsk Oblast of Russia), and Slavic - „Russian, Polish, Hungarian, Bohemian [Czech] and Moldavian“ (Hungarian is in fact Finno-Ugric and Moldavian/Romanian is Romance, with plenty of Slavic influence).⁹⁸ However, according to Rudbeck these languages enter Europe later. Scythian, Greek and Celtic were the only languages to enter Europe straight after the Confusion of Babel.

Although Rudbeck's classification is based on many other criteria, he suggests methods of using comparison in classification as well. He explains that it is possible to ascertain if two languages have a common ancestor by comparison, and suggests the staggering test sample of 100 000 words (an experiment he cannot have considered doing himself).⁹⁹ He illustrates his point on a smaller scale by quoting the same sentence („I can ride just as well as you“) in Swedish, Danish and German, with the words in the same order to show the similarities:

Sveon: Jan kan så wäl wijda som du.
 Danic. Jeg kan saa wäl rijde saam du.
 German. Ich kan so wol reiten als du.¹⁰⁰

Based on this, Rudbeck says that these three languages were once one and the same.

Rudbeck is often seen as the grotesque culmination of Gothicism.¹⁰¹ Because of Rudbeck's patriotism and fanciful theories, the *Atlantica* has often been considered either laughable or frightening. There is little doubt that Rudbeck was severely biased; the fact that he sees every word of cultural importance as Swedish and gives etymologies even to hypothetical forms makes that fact indisputable. However, as Eriksson rightly states, „the baroque age was an era of overstatement“.¹⁰² The *Atlantica* is a highly ambitious project - a search for origins, not for the Garden of Eden or the state before Babel, but an origin within a different

92 For the historical spread of Continental Celtic, see Russell (1995), 2-7. Rudbeck admits his own ignorance of Insular Celtic, claiming that although there are languages spoken in small counties, such as „Cambro-Britanniska“, i.e. Welsh, he does not know anything about them. Rudbeck, *Atlantica*, I.54.

93 Dion. Hal., *ant.* I.90.1.

94 For similar opinions, see Robins (1990), 92.

95 Rudbeck, *Atlantica*, I.50-51.

96 Rudbeck, *Atlantica*, I.54. Rudbeck emphasises the importance of unmarried soldiers, presumably taking local wives, as a lead in language mixture. Liv., V.34-35 dates the first Celtic invasion of Italy to the Roman monarchy. For historical Celtic invasions of Italy during the fourth and fifth centuries, see Rankin (1987), 103-104.

97 Rudbeck, *Atlantica*, I.54.

98 Rudbeck, *Atlantica*, I.54. „under wilcket kommer Lappska, Estska, Biarmiska“ ... „Ryskan, Polniskan, Ungeskan, Bömiskan och Moldawiskan“.

99 Rudbeck, *Atlantica*, I.48-49.

100 Rudbeck, *Atlantica*, I.49.

101 Malm (1996), 73. For a list of common misconceptions about the *Atlantica*, see Eriksson (2002), 496.

102 Eriksson (1994), 95.

framework, based on ancient pagan sources and contemporary protonationalist ideologies. It strives to give a unified answer to all questions. The study of language is only a vehicle for the larger argument, with cultural repercussions.

Rudbeck is not internally consistent, does not stick to his own rules, and bends the facts to suit his own agenda, but he also makes some true observations about the nature of sound-change. His research may not have been a step towards today's comparative linguistics, but the discussions of language in the *Atlantica* goes to show that Rudbeck was a participant of contemporary scholarship, and his eclectic theories make him an interesting representative of the developing linguistic tradition of the Early Modern period.

Abstract

Language Comparison before Comparative Linguistics: Theories of Language Change and Classification in Olof Rudbeck's *Atlantica*

Olof Rudbeck the elder (1630-1702), a true polymath of the time before academic specialisation, uses numerous disciplines in his magnum opus the *Atlantica*, where he argues that the North is the cradle of civilisation. In the first volume of the *Atlantica*, the study of language is particularly central. Here Rudbeck argues that Swedish is a seminal language for European and Mediterranean languages and cultures. Apart from the famous - even infamous - etymologies of theonyms, which connect the Graeco-Roman pantheon to the Norse, Rudbeck explores the concept of language change through the comparison of sets of words in a variety of languages, which leads to suggestions of particularly common 'routes' of language change. Comparison also plays an important role in his method of postulating a classification of the languages of Europe.

This paper explores Rudbeck's theories of language and his methods of analysis. Although Rudbeck's arguments relating to language are part of the same protonationalist ideology as the rest of the *Atlantica*, his analysis of language provides a clear picture of a changing and evolving discipline, and gives intriguing insights into the use of comparison in early modern linguistics.

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